

Louisville Metro Air Pollution Control District
850 Barret Ave., Louisville, Kentucky 40204
xx Month 2013

Construction Statement of Basis

Company: Caldwell Tanks, Incorporated

Plant Location: 4000 Tower Road, Louisville, Kentucky 40219

Date Application Received: 29 January 2013

Application Number: DM 53664

Date of Draft Permit: 30 March 2013

District Engineer: Narathip Chitradon

Permit No: 36880-13-C

Plant ID: 0034

SIC Code: 3443

NAICS: 332313

AFS: 00034

Introduction:

This permit will be issued pursuant to District Regulation 2.03, Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits. This permit establishes limits to avoid District Regulation 2.04, Construction or Modification of Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements) and District Regulation 2.05, Prevention of Significant Deterioration of Air Quality. Its purpose is to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for particulate matter less than 2.5 microns (PM_{2.5}).

Application Type/Permit Activity:

- ☐ Initial Issuance
- ☐ Permit Revision
 - ☐ Administrative
 - ☐ Minor
 - ☐ Significant
- ☐ Permit Renewal
- ☒ Construction

Compliance Summary:

- ☒ Compliance certification signed
- ☐ Source is out of compliance

- ☐ Compliance schedule included
- ☒ Source is operating in compliance

I. Source Information

1. **Plantwide Product/Process Description:** Caldwell Tanks Inc. processes steel plates, pipes and other tank components through the shot blast systems to remove rust and scale, then cuts the plates to desired dimensions and forms and fabricates the plates into various parts. The parts are processed through the surface coating operation for application of primer coatings. The parts are then shipped to the consumer's desired location where they are assembled on-site.
2. **Project Description:** The source will construct one (1) plasma cutting machine. They will also construct one (1) submerged arc plate seamer and three (3) stations for manual welding, which all are considered insignificant activities.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**
Construction permit #36880-13-C contains one (1) plasma cutting machine, which consists of one (1) cutting table, one (1) plasma cutting unit, one (1) slagging table, and one (1) dust collector using cartridge filters.

5. Permit Revisions

Revision No.	Date of Issuance	Public Notice Date	Type	Emission Unit/Page No.	Description
Initial	mm/dd/2013	03/30/2013	Initial	Entire Permit	Initial permit issuance

6. **Fugitive Sources:** None

7. Plantwide Emission Summary:

Pollutant	District calculated Actual Emissions 2011 Data (tpy)	Major Source Status (based on PTE)
CO	0.83	No
NO _x	11.45	No
SO ₂	0.069	No
PM	8.80	Yes
PM ₁₀	4.52	Yes
PM _{2.5}	1.41	Yes
VOC	18.27	Yes
Single HAP > 1 tpy		
MIBK	2.02	Yes

Pollutant	District calculated Actual Emissions 2011 Data (tpy)	Major Source Status (based on PTE)
Xylene	4.67	Yes
Total HAPs	8.21	Yes

8. Applicable Requirements:

☐ PSD ☐ 40 CFR 60 ☒ SIP
☐ NSR ☐ 40 CFR 61 ☒ District-Origin
 ☐ 40 CFR 63 ☐ Other

9. MACT Requirements: None**10. Referenced Federal Regulations in Permit:** None**II. Regulatory Analysis****1. Acid Rain Requirements:** The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. Basis of Regulation Applicability

Regulation	Title	Type
2.03	Permit Requirements – Non-Title V Construction and Operating Permits and Demolition/Renovation Permits	SIP
2.04	Construction or Modification of Major Sources In or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)	SIP
2.05	Prevention of Significant Deterioration of Air Quality	SIP
2.16	Title V Operating Permits	SIP

5.00	Definitions	SIP
5.01	General Provisions	SIP
5.21	Environmental Acceptability for Toxic Air Contaminants	SIP
5.23	Categories of Toxic Air Contaminants	SIP
7.08	Standards of Performance for New Process Operations	SIP

a. **Plant-wide**

There are no plant-wide limits established by this permit.

b. **Permit 36880-13-C**

This permit establishes limits to avoid District Regulation 2.04, Construction or Modification of Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements) and District Regulation 2.05, Prevention of Significant Deterioration of Air Quality. The source is taking avoidance limits for PM₁₀ and PM_{2.5} for this plasma cutting machine.

i. **Equipment:**

Emission Points			
ID	Description	Applicable Regulation(s)	Basis for Applicability
Plasma Cutting Machine	one (1) plasma cutting machine, which consists of one (1) cutting table, one (1) plasma cutting unit, one (1) slagler table, and one (1) dust collector using cartridge filters.	2.03	Regulation 2.03 establishes the non-Title V permit requirements of the District.
		2.04	Regulation 2.04 establishes requirements for the construction, modification of stationary sources within, or impacting upon, areas where the national ambient air quality standards have not been attained
		2.05	Regulation 2.05, which adopts the Federal Prevention of Significant Deterioration of Air Quality program, provides for the prevention of significant deterioration of air quality where the national ambient air quality standards have been achieved
		2.16	Regulation 2.03 establishes procedures for the District to issue operating permits under the Act Title V Permits.
		5.00, 5.01, 5.21, and 5.23	Regulation 5.00, 5.01, 5.21, and 5.23 (STAR Program) establishes the requirements for Environmental Acceptability of toxic air contaminants

			(TACs) and the requirement to comply with all applicable emission standards
		7.08	Regulation 7.08 establishes the requirements for PM emission from existing processes that commenced construction after September 1, 1976.

ii. **Standards/Operating Limits**

a. **PM/PM₁₀/PM_{2.5}**

- (a) The coating operations are subject to a PM standard of less than 2.34 lb/hr in accordance with Regulation 7.08, section 3.1.2. The District has performed a one-time PM compliance demonstration for this equipment on 2/27/2013, and the lb/hr standard cannot be exceeded controlled.
- (b) To ensure that the company complies with the 2.34 lb/hr emission limit, Regulation 2.03, section 5.1 requires the owner or operator to utilize the dust collector at all times the process equipment is in operation.
- (c) The only pollutants over the PSD limit are PM₁₀ and PM_{2.5}. The 15 and 10 ton per year emission limits for PM₁₀ and PM_{2.5} were taken to avoid District Regulations 2.04 *Construction or Modification of major Sources In or Impacting Upon Non-Attainment Areas* (for PM_{2.5}) and 2.05 *Prevention of Significant Deterioration of Air Quality* (PM₁₀). The uncontrolled PM and NO_x, potential emissions are under the PSD threshold.

b. **Opacity**

The coating operations are subject to an opacity standard of less than 20% in accordance with Regulation 7.08, section 3.1.1.

c. **NO_x**

Regulation 7.08, section 4 establishes a NO_x emission limit of 300 ppm by volume, expressed as NO₂. The District has performed a one-time NO_x compliance demonstration for this equipment on 2/27/2013, and the 300 ppm emission standard cannot be exceeded.

d. **TAC**

Regulations 5.00, 5.01, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. A STAR EA Demonstration was received with the construction permit application on January 29, 2013. To stay below the EA Goals of Regulation 5.21, section 3.1, the plasma cutting machine can only operate at 6,100 hours per 12 consecutive month period. This permit also requires the owner or operator to utilize the dust collector at all times the process equipment is in operation in order to meet STAR goals.

iii. **Monitoring and Recordkeeping**

a. **PM/PM₁₀/PM_{2.5}**

Regulation 2.03, section 5.1 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

b. **Opacity**

Regulation 2.03, section 5.1 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

c. **NO_x**

Since the District demonstrated that the plasma cutting machine will be in compliance with the 300 ppm limit, no routine monitoring and recordkeeping conditions are required.

d. **TAC**

Regulation 2.03, section 5.1 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

iv. **Reporting**

a. **PM/PM₁₀/PM_{2.5}**

Regulation 2.03, section 5.1 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

b. **Opacity**

Regulation 2.03, section 5.1 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

c. **NO_x**

Since the District demonstrated that the plasma cutting machine will be in compliance with the 300 ppm limit, no routine reporting conditions are required.

d. **TAC**

Regulation 2.03, section 5.1 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operational flexibility for these emission points.
5. **Compliance Status:** The source signed and submitted a Title V compliance certification for the 2011 calendar year, which was received on April 16, 2012.
6. **Permit Fee:** The construction permit fees are based on PSD/NSR avoidance in accordance with Regulation 2.08, section 2.5.1.1.
7. **Insignificant Activities:** The construction permit contains the following insignificant activities: one (1) submerged arc plate seamer and three (3) stations for manual welding